

**Commonwealth of Kentucky  
Division for Air Quality**

**PERMIT APPLICATION SUMMARY FORM**

Completed by: Martha M. Allman

GENERAL INFORMATION:

Name:	GE Lighting, LLC
Address:	116 West University Drive Somerset, KY 42503
Date application received:	6/23/2008
SIC Code/SIC description:	3229, Pressed and Blown Glass and Glassware, NEC
Source ID:	21-199-00021
Agency Interest:	3809
Activity:	APE20080001
Permit:	V-08-042

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
__Minor	<input checked="" type="checkbox"/> Synthetic minor
__Significant	<input checked="" type="checkbox"/> Operating
<input checked="" type="checkbox"/> Permit renewal	<input type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input checked="" type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input checked="" type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☒ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☒ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☐ Certified by responsible official
- ☐ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	Actual (tpy)	Potential (tpy)
PM/PM <sub>10</sub>	10.85/13.34	41.67/41.97
SO <sub>2</sub>	4.48	10.13
NO <sub>x</sub>	36.51	81.34
CO	2.46	13.41
VOC	4.06	9.10
Fluorides	4.34	16.08
HCl	4.83	9.70
Antimony	0.56	1.43
Chlorine	10.87	21.72
Titanium Dioxide	1.31	2.63
Chromium	1.7E-06	8.76E-04
Single HAP	10.87	21.72
Sourcewide HAPs	21.90	51.56

SOURCE DESCRIPTION:

On June 23, 2008, GE Lighting LLC (GE) filed an application for the renewal of its Title V, synthetic minor operating permit (V-03-028). The facility is a major source of hazardous air pollutants and has taken self-imposed limits to avoid the applicability of 401 KAR 51:017, Prevention of Significant Deterioration. Additional information was requested and received on August 29, 2008, November 6, 2008, and December 29, 2008.

GE is a manufacturer of pressed glass lamp components (reflectors) using ceramic raw materials. Bulk ceramic raw materials are received and stored in silos or bins while other raw materials are received in containers. Materials used in bulk quantities include sand, aluminum hydrate, borax, boric acid, and sodium silica fluoride.

Manufacture of the glass entails melting a mixture of raw materials and cullet (scrap glass). In the glass melter/refiner, materials are melted at high temperatures. Molten glass is refined (residual

trapped gases removed), and the temperature of the glass lowered so that it can be handled in the forming operation. Glass passes from the melter/refiner to the forming equipment via forehearth, relatively shallow refractory channels with means to control the glass temperature. Glass is removed continuously and is cut into "gobs" which are then pressed in the desired shapes. The pressed glass is then annealed before being packaged. Certain products made of specialty glass are washed with soap in an ultrasonic cleaner. Chromium is used in glass molds to ease removal of the glass from the molds.

#### EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

To demonstrate compliance with 401 KAR 63:020, and in accordance with the state-only requirements in Operating Permit O-88-072 and construction permit C-92-008:

Source wide emission of ethanolamine shall not exceed 1.98 lb/hr.

Hydrogen chloride emission from the source shall not exceed 8.40 lb/hr and 36.8 tons/yr.

Antimony trioxide emission from the source shall not exceed 0.598 and 2.62 tons/yr.

Titanium dioxide emission from the source shall not exceed 5.98 lb/hr and 26.2 tons/yr.

#### OPERATIONAL FLEXIBILITY:

None.